Factors Influencing Interventional Radiology Follow-up in Patients with Compressive Iliac Vein Lesions After Stent Placement

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Purpose

Interventional Radiology (IR) patients with May-Thurner syndrome (MTS) are commonly treated with iliac venous stents to relieve mechanical venous obstruction due to acute deep venous thrombosis (ADVT), chronic deep venous thrombosis (CDVT), or non-thrombotic iliac vein lesions (NIVL). Data pertaining to follow-up of patients with MTS who have undergone iliac venous stent placement is limited. This study evaluates the rate of follow-up of patients with MTS after iliac venous stent placement and identifies key factors associated with patients becoming lost to follow-up.

Methods

A retrospective single-center study reviewed MTS patients treated with iliac vein stents between 2017–2023 at UCLA's IR Department. Data on age, sex, ZIP code, the median household income associated with that ZIP code (from U.S. Census data), insurance status and clinical presentation was collected and analyzed for each patient in relation to their post-stenting IR follow-up visit status.

Results

Out of the 30 patients included in this study, seven patients (23%) were lost to follow-up. The median household income of patients who were lost to follow-up was $22,256 lower than that of those who were followed-up with. The lost to follow-up rate for females was 4 (17%) compared to 3 (43%) for males. The mean age of patients who were lost to follow-up was 49 years compared to 53 years for those who maintained follow-up. Two patients (22%) who presented with CDVT were lost to follow-up. Four patients (44%) who presented with ADVT were lost to follow-up. One patient (8%) who presented with NIVL was lost to follow-up.

Table 1: Follow-up rates by patient characteristics

Patient characteristics	Income mean	Age mean	Males count	Females count	AVT	CVT	NIVL	Private insurance	Public insurance	No insurance
Follow-up	$108,863	53 years	4	19	5	7	11	11	11	1
No follow-up	$86,607	49 years	3	4	4	2	1	4	3	0

Conclusion

Close monitoring is critical for MTS after stenting, but barriers to follow-up are multi-factorial. Income level and initial disease presentation appear to have significant impacts on the likelihood of an individual to follow-up post-stenting. Sex disparity in successful follow-up with these patients is also a significant factor, with those lost to follow-up being more than twice as likely to be male. This data suggests that risk factors such as lower income level, presentation with ADVT and male gender could contribute to poor follow-up rates and should be identified early during IR treatment.